(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
11 October 2001 (11.10.2001)

PCT

(10) International Publication Number
WO 01/075067 A3

(51) International Patent Classification[7]: C12N 15/00, 15/12

(21) International Application Number: PCT/US01/08631

(22) International Filing Date: 30 March 2001 (30.03.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

09/540,217	31 March 2000 (31.03.2000)	US
09/649,167	23 August 2000 (23.08.2000)	US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:

US	09/540,217 (CIP)
Filed on	31 March 2000 (31.03.2000)
US	09/649,167 (CIP)
Filed on	23 August 2000 (23.08.2000)

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(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
4 April 2002

(48) Date of publication of this corrected version:
31 October 2002

(15) Information about Correction:
see PCT Gazette No. 44/2002 of 31 October 2002, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES

(57) Abstract: The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

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Polypeptides of the invention may be involved in cancer cell generation, proliferation or metastasis. Detection of the presence or amount of polynucleotides or polypeptides of the invention may be useful for the diagnosis and/or prognosis of one or more types of cancer. For example, the presence or increased expression of a polynucleotide/polypeptide of the invention may indicate a hereditary risk of cancer, a precancerous condition, or an ongoing malignancy. Conversely, a defect in the gene or absence of the polypeptide may be associated with a cancer condition. Identification of single nucleotide polymorphisms associated with cancer or a predisposition to cancer may also be useful for diagnosis or prognosis.

Cancer treatments promote tumor regression by inhibiting tumor cell proliferation, inhibiting angiogenesis (growth of new blood vessels that is necessary to support tumor growth) and/or prohibiting metastasis by reducing tumor cell motility or invasiveness. Therapeutic compositions of the invention may be effective in adult and pediatric oncology including in solid phase tumors/malignancies, locally advanced tumors, human soft tissue sarcomas, metastatic cancer, including lymphatic metastases, blood cell malignancies including multiple myeloma, acute and chronic leukemias, and lymphomas, head and neck cancers including mouth cancer, larynx cancer and thyroid cancer, lung cancers including small cell carcinoma and non-small cell cancers, breast cancers including small cell carcinoma and ductal carcinoma, gastrointestinal cancers including esophageal cancer, stomach cancer, colon cancer, colorectal cancer and polyps associated with colorectal neoplasia, pancreatic cancers, liver cancer, urologic cancers including bladder cancer and prostate cancer, malignancies of the female genital tract including ovarian carcinoma, uterine (including endometrial) cancers, and solid tumor in the ovarian follicle, kidney cancers including renal cell carcinoma, brain cancers including intrinsic brain tumors, neuroblastoma, astrocytic brain tumors, gliomas, metastatic tumor cell invasion in the central nervous system, bone cancers including osteomas, skin cancers including malignant melanoma, tumor progression of human skin keratinocytes, squamous cell carcinoma, basal cell carcinoma, hemangiopericytoma and Karposi's sarcoma.

Polypeptides, polynucleotides, or modulators of polypeptides of the invention (including inhibitors and stimulators of the biological activity of the polypeptide of the invention) may be administered to treat cancer. Therapeutic compositions can be administered in therapeutically effective dosages alone or in combination with adjuvant cancer therapy such as surgery, chemotherapy, radiotherapy, thermotherapy, and laser therapy, and may provide a beneficial effect, *e.g.* reducing tumor size, slowing rate of tumor growth, inhibiting metastasis, or otherwise improving overall clinical condition, without necessarily eradicating the cancer.

The composition can also be administered in therapeutically effective amounts as a portion of an anti-cancer cocktail. An anti-cancer cocktail is a mixture of the polypeptide or

SEQ ID NO:	SEQ ID NO: of peptide sequence	Method	SEQ ID NO: in USSN 09/540,217	Nucleotide location of first codon for peptide sequence	Nucleotide location of last codon for last amino acid of peptide sequence	Amino acid sequence (X=Unknown, *=Stop codon, /=possible nucleotide deletion, \=possible nucleotide insertion)
20242	50610	A	20358	356	1356	TPTTSGRTRKMWPRPGT*PP/A NCSANINLTHQPWFQVLEPQFR QFLFYRHCRYFPMLLNHPEKCR GDVYLLVVVKSVITQHDRREAI RQTWARAAVRGWGPSAVRTLF LLGTASKQEERTHYQQLLAYE DALYGDILQWGFLDTFFNLTLK EIHFLKWLDIYCPHVPFIFKGDD DVFVNPTNLLEFLADRQPQENL FVGDVLQHARPIRRKDNKYYIP GALYGKASYPPYAGGGGFLMA GSLARRLHHACDTLELYPIDDV FLGMCLEVLGVQPTAHEGFKTF GISRNRNSRMNKEPCFFRAMLV VHKLLPPELLAMWGLVHSNLT CSRKLQVL
20243	50611	A	20359	221	1579	CCVDEGLEPTCFERTEDIGGVW RFKVSEIFLGLEQVVLLFQGESQ LMSCFSDFPMPEDFPNFLHNSK LLEYFRIFAKKFDLLKYIQFQVL YFWGNGFLCISSAHI*IENTQSN GKEQSAVFDAVMVCSGHHILP HIPLKSFPGETRWDSQLFGVGF QVLYM*FEGKRILVIGMGNSGS DIAVELSKNAAQV*CSLLTMYL EGRKWGCHTGDWDSVFHTRFR SMLRNVLPRTAVKWMIEQQM NRWFNHENYGLEPQNK*SYFA FLMVYSLVSKVV*RCLKVKST VKELTETSAIFEDGTVEENIDVII FATGYSFSFPFLEDSLVKVENN MVSLYKYIFPAHLDKSTLACIG LIQPLGSIFPTAELQARWVTRVF KGLCSLPSERTMMMDIIKRNEK RIDLFGESQSQTLQTNYVDYLD ELALEIGAKPDFCSLLFKDPKLA VRLYFGP\CNSY
20244	50612	A	20360	3	200	
20245	50613	A	20361	292	570	
20246	50614	A	20362	2	511	RLRSGPLRLPGADSGSGPKAVC SPPFIVAPTGRGYCGDHESSFGA MEEPGVTPQPYLGLLLEELRRV SPGAMSVTWP/EGSREPPGEGSS RPALGSKPPWSEVPKPVLVCCP APAR\FEAVVRLVGRLSGFCVM EEDLGLWEGREKKLALMLSGLI EEKSKLLEKFSLVQKE